SCC-B1311(P)
SCC-B1011P

DIGITAL COLOR CAMERA

operating instructions

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SAMSUNG

safety precautions

CAUTION

RISK OF ELECTRIC SHOCK. DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK)NO USER-SERVICEABLE PARTS
INSIDEREFER SERVICING TO QUALIFIED SERVICE PERSONNEL

This symbol indicates that dangerous voltage consisting a risk of electric shock is present within this unit.

This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

WARNING

- To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

WARNING

1. Be sure to use only the standard adapter that is specified in the specification sheet. Using any other adapter could cause fire, electrical shock, or damage to the product.
2. Incorrectly connecting the power supply or replacing battery may cause explosion, fire, electric shock, or damage to the product.
3. Do not connect multiple cameras to a single adapter. Exceeding the capacity may cause abnormal heat generation or fire.
4. Securely plug the power cord into the power receptacle. Insecure connection may cause fire.
5. When installing the camera, fasten it securely and firmly. A falling camera may cause personal injury.

6. Do not place conductive objects (e.g. screwdrivers, coins, metal things, etc.) or containers filled with water on top of the camera. Doing so may cause personal injury due to fire, electric shock, or falling objects.
7. Do not install the unit in humid, dusty, or sooty locations. Doing so may cause fire or electric shock.
8. If any unusual smells or smoke come from the unit, stop using the product.
   In such case, immediately disconnect the power source and contact the service center.
   Continued use in such a condition may cause fire or electric shock.
9. If this product fails to operate normally, contact the nearest service center.
   Never disassemble or modify this product in any way. (SAMSUNG is not liable for problems caused by unauthorized modifications or attempted repair.)
10. When cleaning, do not spray water directly onto parts of the product.
    Doing so may cause fire or electric shock.

CAUTION

1. Do not drop objects on the product or apply strong shock to it.
   Keep away from a location subject to excessive vibration or magnetic interference.
2. Do not install in a location subject to high temperature (over 122°F), low temperature (below 14°F), or high humidity. Doing so may cause fire or electric shock.
3. If you want to relocate the already installed product, be sure to turn off the power and then move or reinstall it.
4. Remove the power plug from the outlet when then there is a lightning.
   Neglecting to do so may cause fire or damage to the product.
5. Keep out of direct sunlight and heat radiation sources. It may cause fire.
6. Install it in a place with good ventilation.
7. Avoid aiming the camera directly towards extremely bright objects such as sun, as this may damage the CCD image sensor.
8. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
9. The Mains plug is used as a disconnect device and shall stay readily operable at any time.

important safety instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug.
   A polarized plug has two blades with one wider than the other.
   A grounding type plug has two blades and a third grounding prong.
   The wide blade or the third prong is provided for your safety.
   If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.
13. Unplug this apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
14. Refer all servicing to qualified service personnel.
    Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or been dropped.

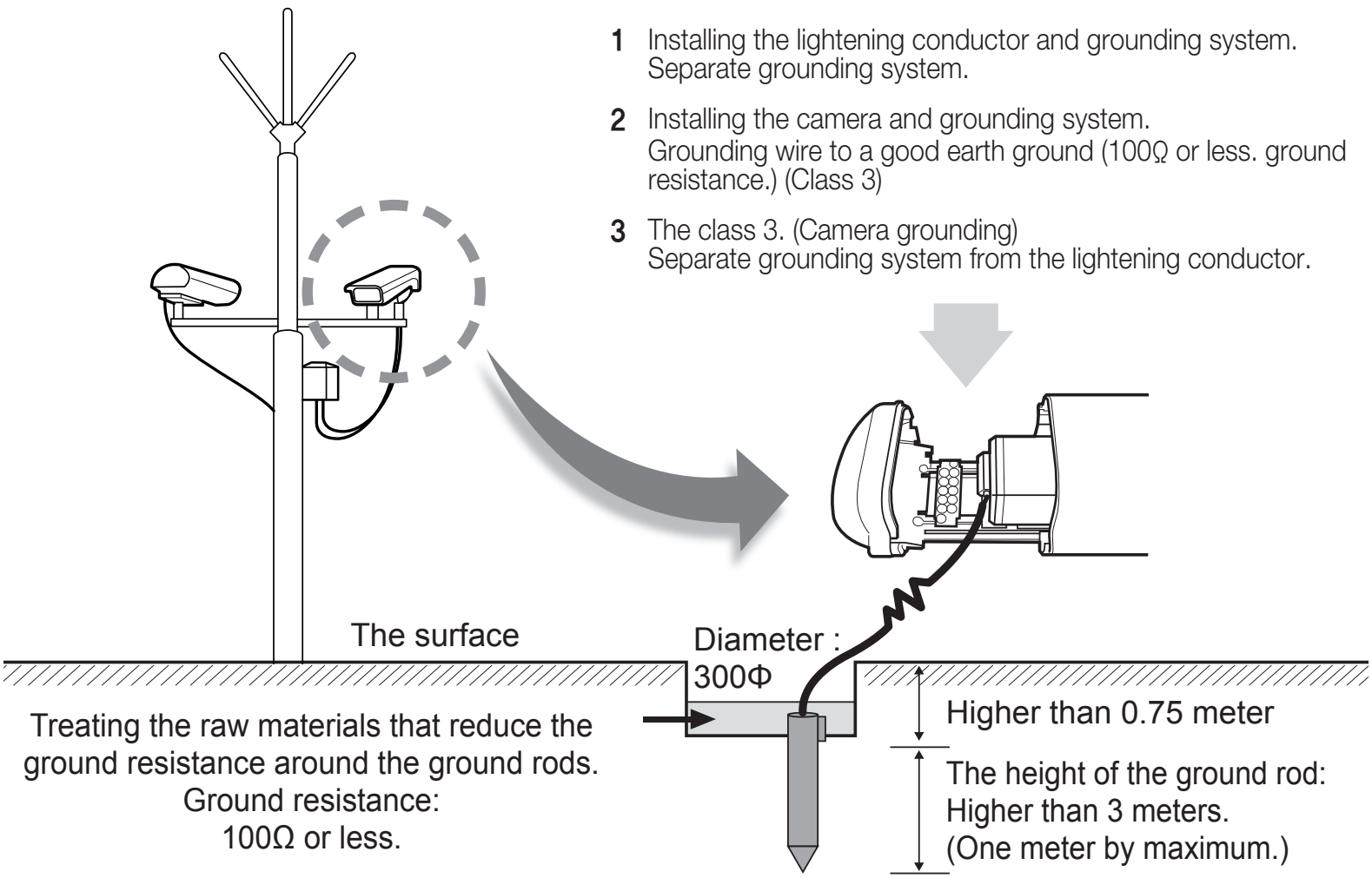
external cctv camera installation

ENG

1 Installing the lightening conductor and grounding system.
Separate grounding system.

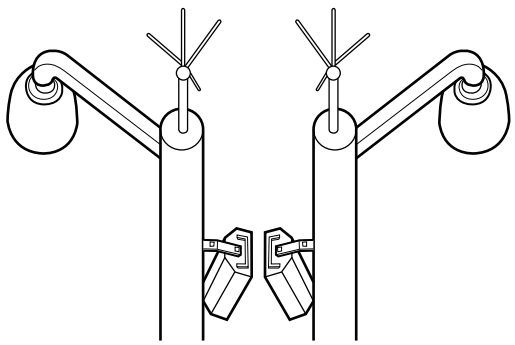
2 Installing the camera and grounding system.
Grounding wire to a good earth ground (100Ω or less. ground resistance.) (Class 3)

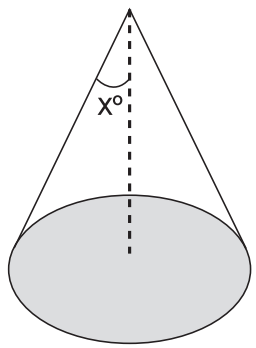
3 The class 3. (Camera grounding)
Separate grounding system from the lightening conductor.



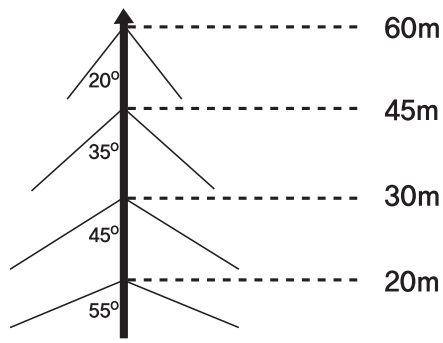
< Construction of the ground rod >

1. Installing a lightening conductor





a) Protection area



b) Protected angle
(Depending on the height of the lightening conductor)

2. Camera grounding

No	Distinguished by	Standard	Note
1	Grounding method	The class 3	CCTV product
2	Thickness of the Grounding wire	1.6mm^2 ↑	
3	Ground resistance	100Ω ↓	

The purpose of the camera grounding
Installing the lightening conductor and grounding the camera chassis prevent the CCTV camera from the lightning strikes. When installing the CCTV camera outside, avoid the damages form the lightning strikes by using the lightening conductor and camera grounding.

contents

ENG

OVERVIEW 02

02 Overview

FEATURES 03

03 Features

INSTALLATION 04

04 Package
04 Parts & Description
05 Things to keep in mind during installation and Use
05 Connect the auto iris lens connector
06 Install the lensr
06 Adjust the back focus
07 Connect the cables and check the operation

SPECIFICATIONS 11

11 Specifications

3D-B1311-EU.indb 1 2008-04-30 오후

overview

It is a high-resolution box camera that has implemented the horizontal resolution of 540 lines by taking advantage of the Digital Signal Processing and OLPF technologies.

- In mechanical fluorescent lightning conditions, you can experience so-called “color rolling” if you have installed the manual iris lens on the camera and positioned the function switch from ELC to ON. In this case, connect the camera to the power source (AC) and position the L/L switch on the rear panel to EXT. (NTSC: 60Hz, PAL: 50Hz)

- What is Color Rolling?
This occurs because the mechanical fluorescent lightning blinks from power frequencies, where the color temperature input to the camera is not certain so the color on the screen changes irregularly (red, blue, yellow, etc).
- This problem can be solved by using the Line Lock function or the Auto Iris Lens.

3D-B1311-EU.indb 2 2008-04-30 오후

features

High Color Sensitivity	The camera adopts the latest 1/3” super-HAD IT CCD to get the benefit of high color sensitivity.
Resolution	Introduces Full Digital Image Processing from the digital signal technology to implement a high-resolution image.
Excellent Back Light Compensation	This will guarantee a sharp image by compensating for the back light even if the sunlight or bright lightening reflects against the subject.
Digital Power Synchronization	Adopts the full digital line lock system to enable you to adjust the vertical synchronization of the camera, an enhancement of manipulation and reliability.
Dynamic CCD Defect Compensation	Uses advanced technology to compensate CCD defects in any mode, to give clear, sharp and noise-free images, even in low contrast scenes.

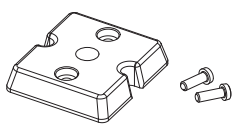
3D-B1311-EU.indb 3 2008-04-30 오후

installation

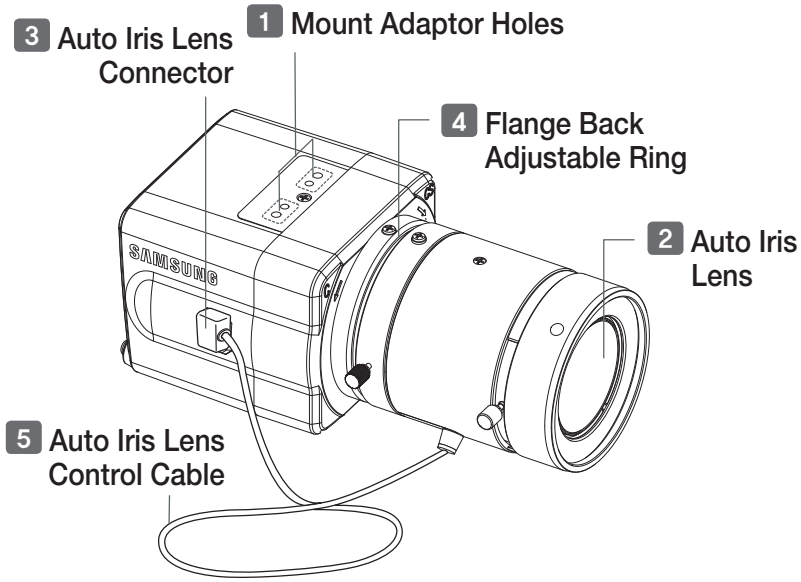
In this chapter, we will provide you with general instructions for product installation and preferred places as well as considerations before installation. Now, let's install the camera and connect necessary cables.)

Package

You must check that all the components and accessories listed below are included in the product package.

	
Camera	Camera Holder (Mount Adaptor) screw x2
User's guide	Auto Iris Lens Connector

Parts & Description



1 Mount Adaptor Holes
Used to fix the mount adaptor with a screw if you want to mount the camera on the bracket.

2 Auto Iris Lens (Optional)
A lens to be installed on the camera
- If the camera gets dirty on the surface of the lens, apply ethanol to the provided tissue or a dry cloth and wipe it out.

3D-B1311-EU.indb 4 2008-04-30 오후

3 Auto Iris Lens Connector
Provides power source and control/ DC signal with iris lens that are required to control the iris of the lens

4 Flange Back Adjustable Ring
Used to adjust the back focus of the camera.

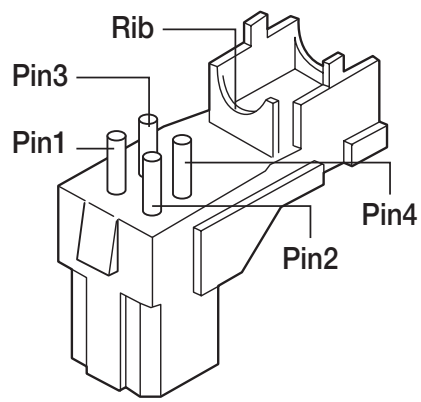
5 Auto Iris Lens Control Cable
Transfers the control signal from the camera to the iris lens.

Things to keep in mind during installation and Use

- Do not disassemble the camera on your own.
- Always be careful when handling the camera. Do not strike the camera by your fists or shake it. Please be careful not to be careless when storing and operating it.
- Do not place or operate the camera in any wet environment such as rain or wet surfaces.
- Do not clean the camera with rough sandpaper. Please always use a dry cloth when cleaning it.
- Put the camera in a cool area free from direct sunlight. Otherwise, the camera may be damaged.

Connect the auto iris lens connector

Remove the sheath round the iris control cable and connect it to each of the auto iris lens connector as described below.

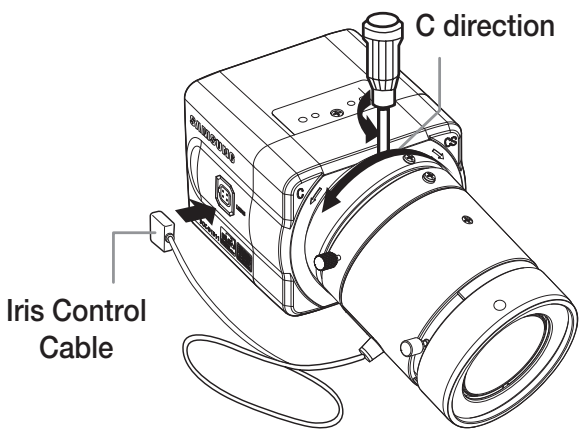


Pin Number	DC Control Type
1	Damp(–)
2	Damp(+)
3	Drive(+)
4	Drive(–)

3D-B1311-EU.indb 5 2008-04-30 오후

Install the lens

Loosen the single screw on the adjustable ring of the flange back by turning it anti-clockwise and turn the ring in the “C” direction (anti-clockwise) to the end. Otherwise, it can cause damage to the internal image sensor or the lens when you install the lens on the camera.



Adjust the back focus

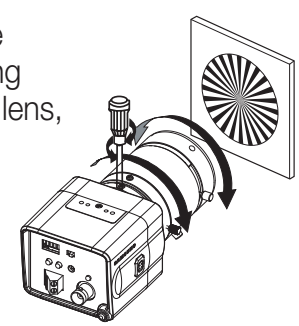
The back focus of a camera is predefined by the factory default. However, some models are out of focus depending on the lens type. If your camera is out of focus, follow the instructions below to adjust the back focus. The following is the procedure used to set the proper back focus point in fixed focus lenses.

Lens without zooming feature

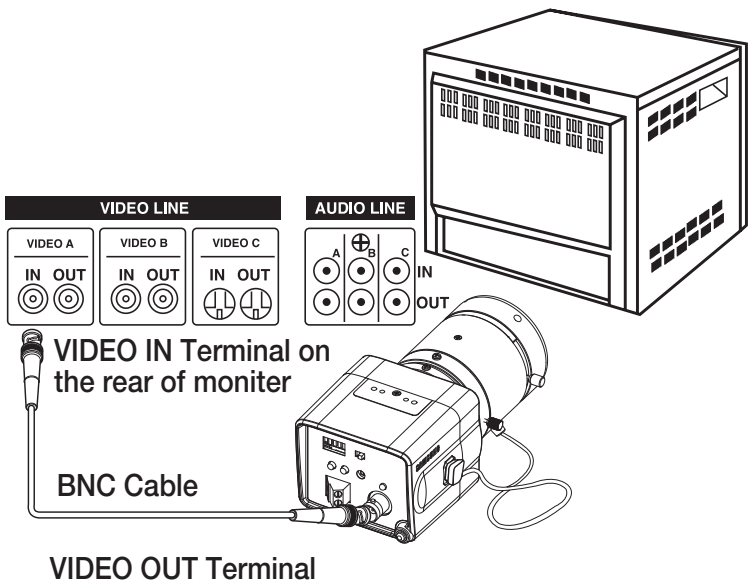
1. Capture a sharp subject (with a grid pattern) more than 10m apart and adjust the focus ring to the infinity (∞).
2. Adjust the adjustable ring of the flange back so that you can capture the sharpest image.
3. Fasten the screw of the adjustable ring of the flange back.

Lens with zooming feature

1. Capture a sharp subject (with a grid pattern) 3-5m apart and adjust the zoom in the TELE (zooming) direction as possible and also adjust the focus ring so that you can capture the sharpest image.
2. Adjust the zoom in the WIDE direction as possible and turn the adjustable ring of the flange back so that you can capture the sharpest image.
3. Repeat 1 and 2 above 2-3 times to match the focus from the ZOOM TELE side with that from the ZOOM WIDE side.
4. Fasten the screw of the adjustable ring of the flange back.
   - If you darken the image before adjusting the focus by attaching the ND filter to the front of the lens, you can get a sharper focus.



Connect the cables and check the operation

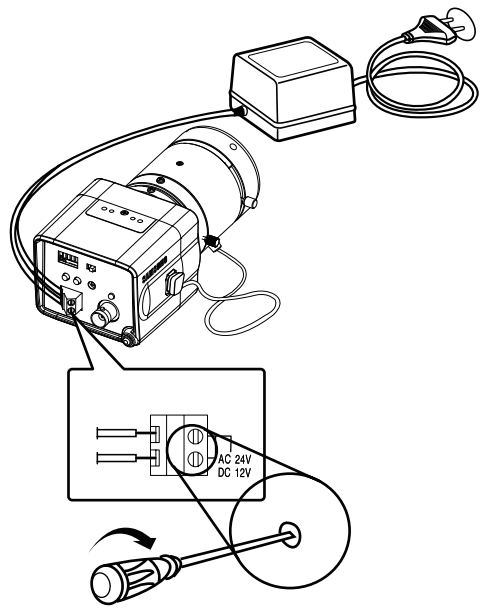


1.Connect one end of the BNC cable to the VIDEO OUT port of the monitor.

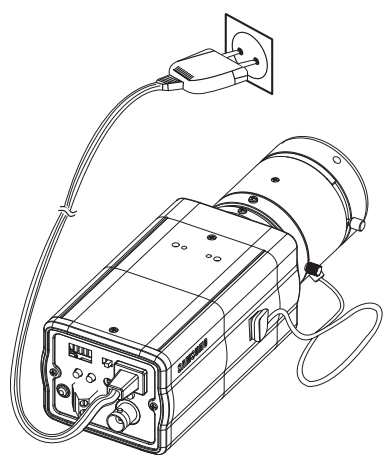
2. Connect the other end of the BNC cable to the VIDEO In port.

3. Connect the camera to the power adaptor. Use a slotted flat (-) screwdriver to connect one end of the two-line power adaptor to the DC/AC IN port of the camera. (GND: marked with a white line on the cable)
   - You can plug in to a power outlet regardless of the polarity for both AC 24V and DC 12V adaptor.

AC24V/DC12V (SCC-B1311, B1311P)

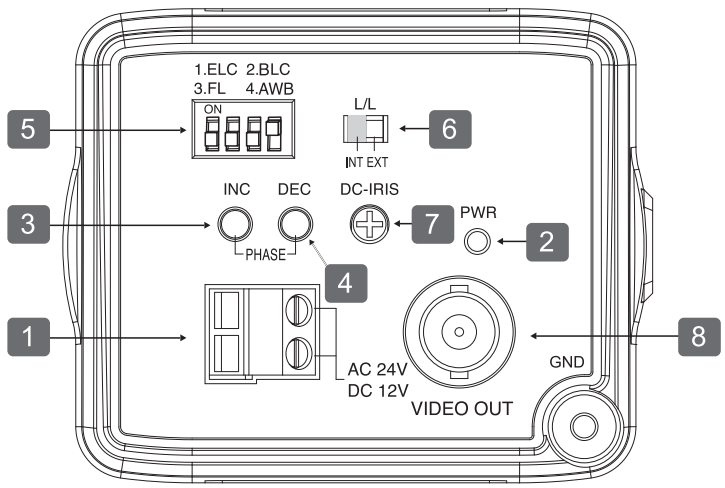


AC220V ~ 240V (SCC-B1011P)

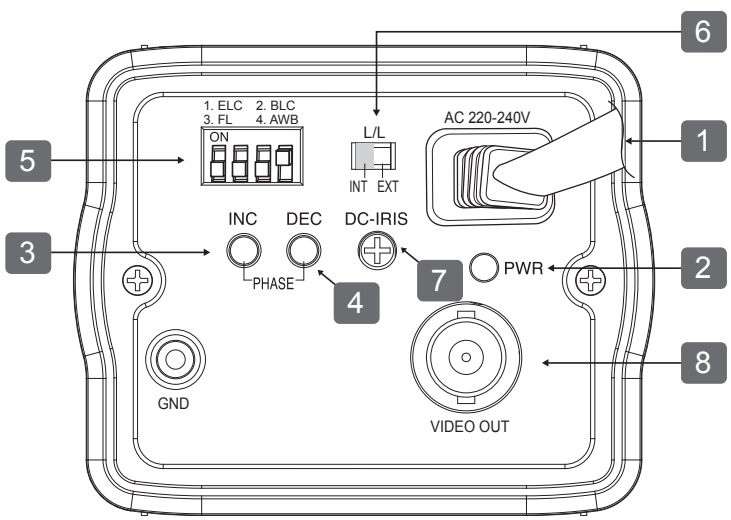


3D-B1311-EU.indb 7 2008-04-30 오후

AC24V/DC12V (SCC-B1311, B1311P)



AC220V ~ 240V (SCC-B1011P)



1 Power Port

Port that is connected to the power (adaptor) cable.

- For SCC-B1311, B1311P

Connects to AC 24V or DC 12V.

- For SCC-B1011P

Connects to AC220V ~ 240V.

2 Power Indication LED

If properly supplied with power, the LED turns on.

3 Vertical Synchronization Phasing Switch (Left)

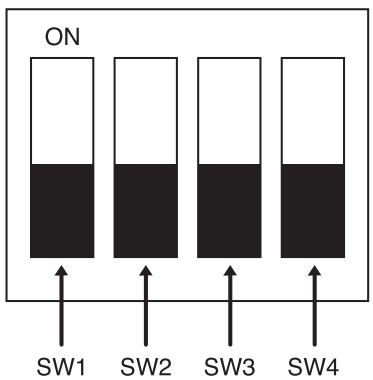
Used to adjust the vertical synchronization phasing. If pressed, the vertical synchronization moves to the left.

4 Vertical Synchronization Phasing Switch (Right)

Used to adjust the vertical synchronization phasing. If pressed, the vertical synchronization moves to the right.

3D-B1311-EU.indb 8 2008-04-30 오후

5 FUNCTION SWITCH-1



1. ELC
2. BLC
3. FL(Flickerless)
4. AWB

SW1(ELC)

Use this for the manual iris lens. If set to ON, the electronic shutter speed varies between 1/60 and 1/120,000 second to keep the screen brightness proper. However, you must position this switch to OFF if you are using the auto iris lens (DC control type). Because, in this mode, the camera can show the color rolling effect when operating under the mechanical fluorescent lightning. If this happens, apply the AC power and set the L/L to "EXT". (NTSC: 60Hz, PAL: 50Hz)

SW2(BLC)

Use to compensate for a display that is too bright or too dark when indoor lighting or windows reflects against the subject. Set to ON for these conditions.

SW3(FL)

It is an anti-flicker system that prevents the flickering of the image due to mismatch between the vertical sync frequency and the on-off frequency of the lightning.
It is used when the camera and broadcasting system within its own region do not match each other. If set to ON, the electronic shutter speed stays at either 1/100sec (NTSC) or 1/120sec (PAL).

If SW1 (ELC) is set to ON, the anti-flicker system does not work even if SW3 is positioned to ON.

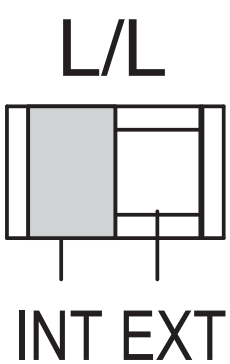
SW4(AWB)

ON(ATW): It automatically adjusts the image color according to the temperature change of the lightning color. Under a very irregular lightning condition (such as car headlight), if set to ON, it captures a subject normally (white).
OFF(AWC): It remembers the normal color temp switch with the OFF to operate at a certain white balance level.

Note that AWB can cause an error in the following conditions:
- If a big subject of a uniform color with a high saturation exists in the center of the screen or if few part of the image is in white.
- If the lightning is made of special material like sodium.

3D-B1311-EU.indb 9 2008-04-30 오후

6 FUNCTION SWITCH-2



If multiple cameras are connected to such as a sequential switcher in auto switch mode, the camera in the internal sync mode occurs a skip every time it moves to other scene. However, this can be solved by positioning the L/L switch to EXT and using the level bar to adjust the vertical sync phasing.

- INT: It operates in the internal synchronization mode.
- EXT: it operates in the power synchronization mode.

※ If your camera uses DC 12V for power source, it operates in the internal mode regardless of the position (EXT/INT) of the L/L switch.

7 DC IRIS Level Bar

Used to adjust the iris level of this level bar using a screwdriver.

- Anti-clockwise: Decreases the luminance level.
- Clockwise: Increases the luminance level.

- The IRIS range of the DC lens is about between 80IRE and120IRE. In other words, the DC lens adopts a variable range limitation system, rather than IRIS Full Open/Close system.
- Depending on the type of the lens used that allows setting the value below 75 IRE may cause IRIS hunting. Therefore, make sure that the range is set to an appropriate level (higher than 80 IRE).

8 Video Out Port

Connected to the Video Out port of a monitor. The video signal is output via this port.

3D-B1311-EU.indb 10 2008-04-30 오후

specifications

SCC-B1311

Item	Description
Product Type	Surveillance Camera
Broadcasting System	NTSC STANDARD SYSTEM
Imaging Device	1/3"IT, S-HAD-CCD
Number of Effective Pixels	768(H) x 494(V)
Scanning	525 Line, 2:1 interlace
Line Frequency	INTERNAL : 15,734Hz(H) 59.94 Hz(V) LINELOCK : 15,750Hz(H) 60 Hz(V)
Synchronous Mode	INTERNAL LINE LOCK (AC 24V)
Horizontal Resolution	540 TV Lines
S/N Ratio	Approx. 50dB
Minimum Subject Illumination	0.40Lux (F1.2, 50IRE) 0.24Lux (F1.2, 30IRE) 0.12Lux (F1.2, 15IRE)
ALC/ELC	ALC: DC IRIS LENS Only ELC: Electronic Shutter Iris (max. 1/120Ksec)

Item	Description
FL(FLICKERLESS)	OFF/ON
Lens	Manual/Auto Iris DC Lens
Lens Mount	C, CS Lens Adaptable
AWB(Auto White Balance)	ON : ATW OFF : AWC
BLC(Back Light Compensation)	ON/OFF
AGC	AUTO
Signal Out	COMPOSITE VIDEO OUT 1V p_p 75 Ω / BNC
Power	AC24V ±10%(60Hz±0.3Hz), DC12V+10%~-5%
Power Consumption	Approx. 3.0 Watts
Operation Temperature	-10°C ~ +50°C
Operation Humidity	~90%
Dimension(mm)	68(W) x 55(H) x 77.1(D)
Weight	220 g

3D-B1311-EU.indb 11 2008-04-30 오후

SCC-B1311P, B1011P

Item	Description
Product Type	Surveillance Camera
Broadcasting System	PAL STANDARD SYSTEM
Imaging Device	1/3"IT, S-HAD-CCD
Number of Effective Pixels	752(H) x 582(V)
Scanning	625 Line, 2:1 interlace
Line Frequency	INTERNAL : 15,625Hz(H) 50 Hz(V) LINE LOCK: 15,625Hz(H) 50 Hz(V)
Synchronous Mode	INTERNAL LINE LOCK (AC 24V)
Horizontal Resolution	540 TV Lines
S/N Ratio	Approx. 50dB
Minimum Subject Illumination	0.40Lux (F1.2, 50IRE) 0.24Lux (F1.2, 30IRE) 0.12Lux (F1.2, 15IRE)
ALC/ELC	ALC : DC IRIS LENS Only ELC : Electronic Shutter Iris (max. 1/120Ksec)
FL(FLICKERLESS)	OFF/ON
Lens	Manual/Auto Iris DC Lens

Item	Description
Lens Mount	C, CS Lens Adaptable
AWB(Auto White Balance)	ON : ATW OFF : AWC
BLC(Back Light Compensation)	ON/OFF
AGC	AUTO
Signal Out	COMPOSITE VIDEO OUT 1V p_p 75 Ω / BNC
Power	SCC-B1311P: AC24V ±10%(50Hz±0.3Hz), DC12V+10%~-5% SCC-B1011P : AC220V~AC240V(50Hz±0.3Hz)
Power Consumption	SCC-B1311P: approx. 3.0 Watts SCC-B1011P: approx. 3.5 Watts
Operation Temperature	-10°C ~ +50°C
Operation Humidity	~90%
Dimension(mm)	SCC-B1311P: 68(W) x 55(H) x 77.1(D) SCC-B1011P: 65(W) x 55(H) x 130.5(D)
Weight	SCC-B1311P: 220 g SCC-B1011P: 450 g

3D-B1311-EU.indb 12 2008-04-30 오후

Correct Disposal of This Product

(Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

Memo